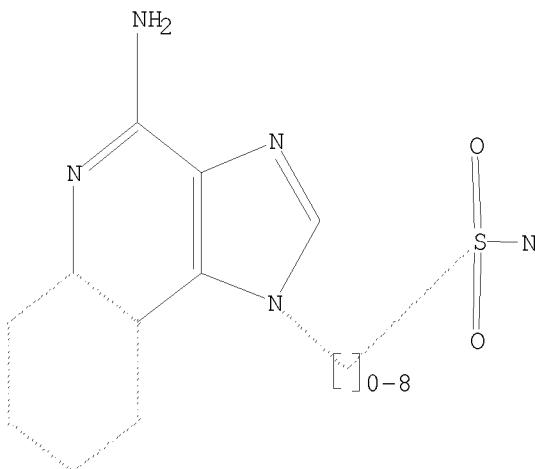


L7 STRUCTURE UPLOADED

=> d 17  
 L7 HAS NO ANSWERS  
 L7 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 17  
 SAMPLE SEARCH INITIATED 14:08:42 FILE 'REGISTRY'  
 SAMPLE SCREEN SEARCH COMPLETED - 44 TO ITERATE  
 100.0% PROCESSED 44 ITERATIONS 27 ANSWERS  
 SEARCH TIME: 00.00.01  
 FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*  
 PROJECTED ITERATIONS: 483 TO 1277  
 PROJECTED ANSWERS: 229 TO 851

L8 27 SEA SSS SAM L7

=> s 17 ful  
 FULL SEARCH INITIATED 14:08:51 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 736 TO ITERATE  
 100.0% PROCESSED 736 ITERATIONS 420 ANSWERS  
 SEARCH TIME: 00.00.01

L9 420 SEA SSS FUL L7

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
----------------------	------------------	---------------

FULL ESTIMATED COST	185.88	562.84
---------------------	--------	--------

FILE 'CAPLUS' ENTERED AT 14:08:56 ON 09 SEP 2009  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 9 Sep 2009 VOL 151 ISS 11  
FILE LAST UPDATED: 8 Sep 2009 (20090908/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9.

```
=> s 19
L10          3 L9
```

```
=> d abs fbib fhitstr 1-3
```

```
L10 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
AB The present invention provides pharmaceutical combinations that include
      small mol. immune response modifiers (IRMs) formulated for mucosal
      administration and an antigen formulated for mucosal administration.
      Addnl., the invention provides methods for immunizing a subject.
      Generally, the methods include administering an antigen to a mucosal
      surface of the subject in an amount effective, in combination with an IRM
      compound, to generate an immune response against the antigen; and
      administering an IRM compound to a mucosal surface of the subject in an amount
      effective, in combination with the antigen, to generate an immune response
      against the antigen. For example, an ovalbumin-IRM1
      (N-[6-[[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]
```

1,1-dimethylethyl]amino]-6-oxohexyl]-4-azido-2-hydroxybenzamide) conjugate was prepared and suspended in PBS to a final concentration of 5 mg/mL ovalbumin and

0.5 mg/mL IRM1. Mice were immunized on Day 0 with 100 µg of the ovalbumin-IRM1 conjugate, either intranasally or i.v. Intranasal delivery of antigen plus IRM1 generated greater total ovalbumin-specific CD8+ T cell (OT-I) nos. at Day 7 than i.v. delivery in all lymphoid tissues examined. Also, intranasal delivery of IRM1 plus antigen generated greater total OT-I cell nos. at Day 7 than antigen alone, indicating a dramatic effect of the IRM in enhancing antigen specific T cell activation via that route.

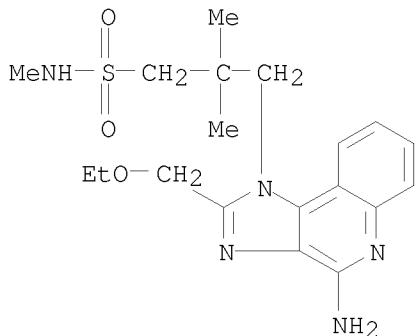
AN 2006:216958 CAPLUS  
 DN 144:299305  
 TI Compositions comprising nitrogen-containing heterocycle immune response modifiers for mucosal vaccination  
 IN Miller, Richard L.; Kieper, William C.  
 PA 3M Innovative Properties Company, USA  
 SO U.S. Pat. Appl. Publ., 20 pp.  
 CODEN: USXXCO

DT Patent  
 LA English

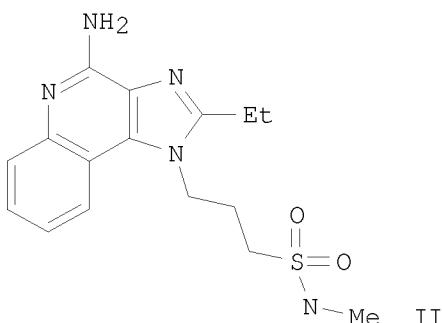
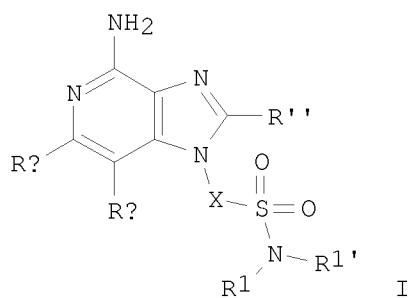
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20060051374	A1	20060309	US 2005-116476 US 2004-566121P	20050428 P 20040428
	CA 2564855	A1	20051028	CA 2005-2564855 US 2004-566121P	20050428 P 20040428
				WO 2005-US14746	W 20050428
	WO 2006126981	A2	20061130	WO 2005-US14746	20050428
	WO 2006126981	A3	20090409		
		W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
		RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA		
	AU 2005331250	A1	20061214	US 2004-566121P AU 2005-331250	P 20040428 20050428
	EP 1755665	A2	20070228	EP 2005-857870	20050428
		R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU	US 2004-566121P WO 2005-US14746	P 20040428 W 20050428
	BR 2005010430	A	20071030	BR 2005-10430 US 2004-566121P	20050428 P 20040428
	JP 2008505857	T	20080228	WO 2005-US14746 JP 2007-518053	W 20050428 20050428

MX 2006012451	A	20070131	US 2004-566121P WO 2005-US14746 MX 2006-12451 US 2004-566121P WO 2005-US14746 CN 2005-80013768 US 2004-566121P WO 2005-US14746 IN 2006-CN4378 WO 2005-US14746	P 20040428 W 20050428 20061026 P 20040428 W 20050428 20061030 P 20040428 W 20050428 20061128 W 20050428
CN 101426524	A	20090506		
IN 2006CN04378	A	20070615		
IT 859875-28-8, IRM 6				
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
RN 859875-28-8 CAPLUS				
CN 1H-Imidazo[4,5-c]quinoline-1-propanesulfonamide, 4-amino-2-(ethoxymethyl)-N,β,β-trimethyl- (CA INDEX NAME)				



L10 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
GI



AB Title compds. I [X = CHR9, CHR9-alkylene, CHR9-alkenylene wherein alk(en)ylene are optionally interrupted by one or more O; R9 = H, alkyl; R1, R1' = independently H, (un)substituted alk(en)yl, hetero/aryl, etc.; or R1NR1' = nitrogen saturated ring; R'' = H, non-interfering substituent; RA, RB = independently H, halo, alk(en)yl, alkoxy, alkythio, NH2 and derivs.; or RBCCRA = (un)substituted fused hetero/aryl; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, II (m.p. = 225-228°) was prepared in 5 steps by amination of 4-chloro-3-nitroquinoline with N-methyl-3-aminopropane-1-sulfonamide•HCl, hydrogenation, cyclization of 1,2-diamine with tri-Et orthopropionate, and oxidation, and amination of the N-oxide (not isolated) with NH4OH. Certain I may modulate cytokine biosynthesis by inhibiting production of interferon  $\alpha$  and/or tumor necrosis factor TNF- $\alpha$  when tested in an in vitro blood cell system (no data).

AN 2005:638876 CAPLUS

DN 143:153375

TI Preparation of imidazoquinolinyl, imidazopyridinyl, and imidazonaphthyridinyl sulfonamides as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases

IN Bonk, Jason D.; Dellaria, Joseph F., Jr.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 226 pp.  
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

PI	WO	2005066169	A2	20050721	WO	2004-US43447		20041223
	WO	2005066169	A3	20051110				
					W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM		
					RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
						US	2003-533465P	P 20031230
						US	2004-555936P	P 20040324
						US	2004-581335P	P 20040618
AU	2004312508		A1	20050721	AU	2004-312508		20041223
						US	2003-533465P	P 20031230
						US	2004-555936P	P 20040324
						US	2004-581335P	P 20040618
						WO	2004-US43447	W 20041223
CA	2551399		A1	20050721	CA	2004-2551399		20041223
						US	2003-533465P	P 20031230
						US	2004-555936P	P 20040324
						US	2004-581335P	P 20040618
						WO	2004-US43447	W 20041223
EP	1699788		A2	20060913	EP	2004-815514		20041223
					R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU		
						US	2003-533465P	P 20031230
						US	2004-555936P	P 20040324
						US	2004-581335P	P 20040618
						WO	2004-US43447	W 20041223
JP	2007517044		T	20070628	JP	2006-547410		20041223
						US	2003-533465P	P 20031230
						US	2004-555936P	P 20040324
						US	2004-581335P	P 20040618
						WO	2004-US43447	W 20041223
CN	101014596		A	20070808	CN	2004-80042087		20041223
						US	2003-533465P	P 20031230
						US	2004-555936P	P 20040324
						US	2004-581335P	P 20040618
						WO	2004-US43447	W 20041223
US	20090062272		A1	20090305	US	2006-596897		20060628
						US	2003-533465P	P 20031230
						US	2004-555936P	P 20040324
						US	2004-581335P	P 20040618
						WO	2004-US43447	W 20041223
IN	2006CN02383		A	20070706	IN	2006-CN2383		20060630
						US	2003-533465P	P 20031230
						WO	2004-US43447	W 20041223

OS CASREACT 143:153375; MARPAT 143:153375

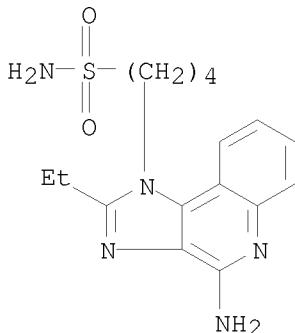
IT 859874-33-2

RL: PRPH (Prophetic)

(Preparation of imidazoquinolinyl, imidazopyridinyl, and imidazonaphthyridinyl sulfonamides as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)

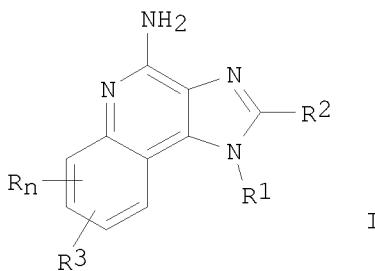
RN 859874-33-2 CAPLUS

CN 1H-Imidazo[4,5-c]quinoline-1-butanesulfonamide, 4-amino-2-ethyl- (CA INDEX NAME)



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)  
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
 GI



AB Title compds. I (R = alkyl, alkoxy, OH, CF<sub>3</sub>; n = 0, 1; R<sub>1</sub>, R<sub>2</sub> = H, non-interfering substituent; R<sub>3</sub> = ArZ, aminosulfonylaryl, aminocarbonylaryl, etc.; Ar = aryl, heteroaryl; Z = bond, alkylene, alkenylene, alkynylene) which are immunomodulators, inducing cytokines biosynthesis, and inhibiting tumor necrosis factors biosynthesis, are prepared. For example, 2-butyl-1-isobutyl-7-(thiophen-3-yl)-1H-imidazo[4,5-c]quinolin-4-amine was prepared in a multi-step synthesis starting from 3-bromoaniline, tri-Et orthoformate, and Meldrum's acid. I are useful in the treatment of viral and neoplastic diseases.

AN 2004:566606 CAPLUS

DN 141:123628

TI Preparation of aryl/heteroaryl substituted imidazoquinolines as immunomodulators  
 IN Hays, David S.; Niwas, Shri; Kshirsagar, Tushar; Ghosh, Tarun K.; Gupta, Shalley K.; Heppner, Philip D.; Merrill, Bryon A.; Bonk, Jason D.; Danielson, Michael E.; Gerster, John F.; Haraldson, Chad A.; Johannessen, Sarah C.; Kavanagh, Maureen A.; Lindstrom, Kyle J.; Prince, Ryan B.; Radmer, Matthew R.; Rice, Michael J.; Squire, David J.; Strong, Sarah A.; Wurst, Joshua R.

PA 3M Innovative Properties Company, USA

SO PCT Int. Appl., 465 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004058759	A1	20040715	WO 2003-US40373	20031218
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			US 2002-435889P	P 20021220
				US 2003-516331P	P 20031031
CA	2510375	A1	20040715	CA 2003-2510375	20031218
				US 2002-435889P	P 20021220
				US 2003-516331P	P 20031031
				WO 2003-US40373	W 20031218
AU	2003301052	A1	20040722	AU 2003-301052	20031218
				US 2002-435889P	P 20021220
				US 2003-516331P	P 20031031
				WO 2003-US40373	W 20031218
US	20040147543	A1	20040729	US 2003-739787	20031218
US	7091214	B2	20060815	US 2002-435889P	P 20021220
				US 2003-516331P	P 20031031
EP	1590348	A1	20051102	EP 2003-814164	20031218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			US 2002-435889P	P 20021220
				US 2003-516331P	P 20031031
				WO 2003-US40373	W 20031218
CN	1747953	A	20060315	CN 2003-80109659	20031218
				US 2002-435889P	P 20021220
				US 2003-516331P	P 20031031
JP	2006513212	T	20060420	JP 2004-563764	20031218
				US 2002-435889P	P 20021220
				US 2003-516331P	P 20031031
				WO 2003-US40373	W 20031218
NZ	540826	A	20080731	NZ 2003-540826	20031218
				US 2002-435889P	P 20021220

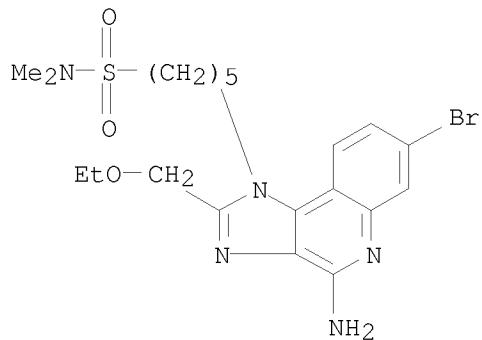
MX 2005006740	A	20051005	US 2003-516331P WO 2003-US40373 MX 2005-6740 US 2002-435889P US 2003-516331P WO 2003-US40373	P 20031031 W 20031218 20050617 P 20021220 P 20031031 W 20031218
IN 2005CN01348	A	20070727	IN 2005-CN1348 US 2002-435889P WO 2003-US40373	20050620 P 20021220 W 20031218
ZA 2005005787	A	20061227	ZA 2005-5787 US 2002-435889P	20050719 P 20021220
US 20060111387	A1	20060525	US 2006-275553 US 2002-435889P US 2003-516331P US 2003-739787	20060113 P 20021220 P 20031031 A3 20031218
IN 2008CN00052	A	20080919	IN 2008-CN52 US 2002-435889P WO 2003-US40373 IN 2005-CN1348	20080104 P 20021220 W 20031218 A3 20050620

OS MARPAT 141:123628  
 IT 723283-23-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of imidazoquinoline derivs. as immunomodulators for treatment  
 of viral and antineoplastic diseases)

RN 723283-23-6 CAPLUS

CN 1H-Imidazo[4,5-c]quinoline-1-pentanesulfonamide,  
 4-amino-7-bromo-2-(ethoxymethyl)-N,N-dimethyl- (CA INDEX NAME)



OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)